



**Pioneer West Garden & Pet Center*

Japanese and Oriental Fire bellied Newts

(Cynops pyrrhogaster) and (Cynops orientalis)

Primitive, Toad-Like Newts

Japanese, or Oriental fire bellied newts are a largely aquatic to semi-aquatic species of newt. These are fairly large, stocky newts with a sand paper like skin color of black, dark brown, to olive brown and a typically black and orange to red mottled ventral surface (or underside). These newts can arch their heads and tails upwards to display their brightly colored underside to potential predators, which is known as the unken reflex. In the wild, they can secrete a distasteful toxin if ingested, although these newts in captivity often tend to lose this toxicity. These newts are fairly primitive in their characteristics, and in some ways, may be thought of as the toad-like equivalent among caudates due to their paratoid glands, rough, sand-paper like skin, and defensive habits described above. Fire bellied newts are a very inexpensive and hardy amphibian to maintain for the beginning enthusiast or pet owner.

Taxonomy

Life: All living, physical, and animate entities

Domain: Eukaryota

Kingdom: Animalia

Phylum/Sub Phylum: Chordata/Vertebrata

Class: Amphibia

Order: Caudata/Urodela

Suborder: Salamandroidea

Family: Salamandridae

Genus: Cynops

Species: *Cynops pyrrhogaster**

**Taxonomy subject to change and revision.*

Lifespan and Longevity

If provided the proper care, fire bellied newts can attain longevity of 5 to 10 years or more.

Distribution and Habitat

The Oriental and Japanese fire bellied newts are indigenous to China and Japan, of eastern Asia, where they occur in the Chinese provinces of Jiangsu, Zhejiang, Jiangxi, Anhui, and Hubei, and the Japanese provinces and Islands of Honshu, Shikoku, and Kyushu. Within these ranges, these newts inhabit shallow, well-vegetated ponds, ditches, slow moving rivers and streams, small lakes, flooded fields and wetlands, mountain ponds, and other similar bodies of water.

Origin/History

Cynops pyrrhogaster (Boie, 1826); *Cynops orientalis* (David, 1873).

Cynops pyrrhogaster—or Japanese fire-bellied newts, as they are popularly known by—were, for decades, the most commonly imported and kept nonnative salamander in the US pet trade. Prior to the early 1990s, this species was a common sight in any given local aquarium pet store, where they often were the one amphibian tank. By the late 1990s, importation of *Cynops pyrrhogaster* had decreased significantly, and even prior to the US newt and salamander ban in 2016, it was rare to see them in stores.

The smaller Chinese fire-bellied newt, *Cynops orientalis*, was being imported in huge numbers and had, until 2016, become the most frequently imported newt species at that time. Newt and Salamander Ban Effective Jan. 28, 2016, the United States Fish and Wildlife Service issued a ban on the importation and interstate transport of 201 newt and salamander species, including all species of *Cynops*. The rationale behind this decision was to prevent the introduction and spread of the deadly Bsal fungus, *Batrachochytrium salamandrivoranus*, to US native amphibian populations. Initially, the backlash among salamander hobbyists was severe. This new law effectively killed much of the trade as it was practiced at the time. A year later, the law was amended to allow interstate transport of captive-bred species. Prior to the ban, acquiring *Cynops pyrrhogaster* was more difficult to begin with. Since the ban, one must diligently search for breeders who will offer their offspring from time to time (Foster Reves May 2019).

Experience Level Required

Novice/Beginner.

Size

Adult fire bellied newts reach 2.0 to 6.0 inches in total snout-to-tail length, depending somewhat on the exact species. The Japanese fire-bellied newt, *Cynops pyrrhogaster*, reaches about 1.3 to 2.7 inches in snout-to-vent length, and the Oriental fire-bellied newt, *C. orientalis*, is similarly sized.

Housing and Enclosure

Enclosure System: Aquatic to Moist-Terrestrial. Housing must be sealed and escape proof with a secured top or aquarium hood. A 10 to 20 gallon aquarium, terrarium, or other enclosure is suitable for a pair of these newts. They can also be kept communally in proportionally larger housing. The enclosure should consist of a primarily aquatic setup on a sand or gravel substrate, although some access to dryer but still moist areas out of the water can also be provided. An appropriate filter can be used to help maintain water clarity and cleanliness. Also provide ample hiding opportunities in the aquarium using live plants and rocks. Enclosures should be spot cleaned, sterilized, and water cleaned and changed regularly every 1 to 2 weeks.

Temperature, Lighting, and Humidity

Fire bellied newts have simple and undemanding heating and lighting requirements in captivity, and do not require additional UVA/UVB lighting, although providing it in moderated amounts can be greatly beneficial for their health, immune system, and overall wellness. Fire bellied newts otherwise do not require any other special lighting or heating unless live plants are also maintained, although water temperatures should be maintained at around 65 to 75 degrees F. For any supplemental heating that may be needed, use a low wattage incandescent or UVA/UVB bulb, radiant or ceramic heat emitter, submersible water heater, or UTH (under tank heating element). They are susceptible to health and husbandry related issues if water temperatures are

too cold or too warm for these unusual amphibians. More specific lighting, heating, and humidity product suggestions and recommendations that can best suit one's needs, as well as those of one's animals can be given as well. Humidity is not applicable for aquatic newts, while humidity for terrestrial phases should be kept high, at around at least 75 to 80%.

Feeding, Diet, and Nutrition

Insectivorous to Carnivorous; Fire-bellied newts are largely carnivorous and opportunistic feeders in the wild, feeding on small fish and fish eggs, a wide variety of insects, arthropods, worms, crustaceans, and other invertebrates. In captivity, these newts are easily fed, and can readily be given chopped nightcrawlers, worms, isopods, feeder crickets, roaches, waxworms, and mealworms at least two to three times weekly, with this being their recommended feeding frequency. Any feeder insects should also be gut loaded and dusted with additional calcium and vitamin D3 supplements as well prior to feeding to ensure optimal nutrition and health. More specific dietary and supplementary product suggestions and recommendations that can best suit one's needs, as well as those of one's animals can be given as well.

Handling

Fire bellied newts are delicate and sensitive amphibians, and handling should be avoided or kept to a minimum whenever possible. These newts can also possess toxic or irritating skin secretions as well. Ideally, an aquarium net of appropriate size can be used to move aquatic caudates whenever necessary. All amphibians breathe and respire through their skin, as well as absorb water through this means. It is therefore important to avoid wearing any chemicals or lotions on your hands, which can be potentially harmful or even fatal to amphibians. It is also important to wash or rinse hands thoroughly, and ensure they are adequately moistened before and after handling any amphibians in order to prevent them from drying out.

****Also be sure to practice basic cleanliness and hygiene associated with proper husbandry after touching or handling any animals or animal enclosures to prevent the possibility of contracting salmonellosis or any other zoonotic pathogens****

Contact

Authored by Eric Roscoe. For any additional questions, comments, and/or concerns regarding this animal, group of animals, or this care sheet, please email and contact:

Eric.S.Roscoe@gmail.com

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